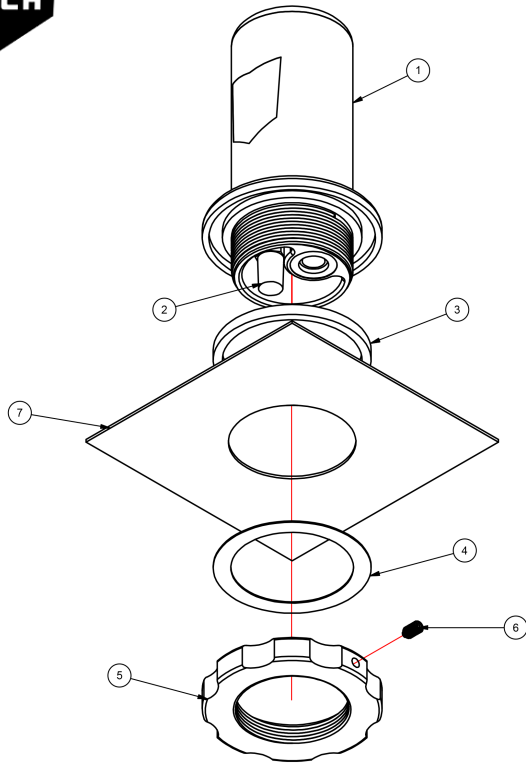




# INSTALLATION INSTRUCTION, IIMUCH® VSB, P/N 200025



No.	Description
1	VSB
2	40 micron filter
3	Gasket
4	Washer
5	Nut
6	Set screw 1/4-28 x 3/8
7	Mounting surface (for reference)
Fig. 1	Temp. Indicating Decal
Fig. 4	Thermometer Decal, Fuel Tank



## **Warning: hazardous situations that, if not avoided, could result in death or serious injury**

1. The IIMUCH VSB does NOT provide rollover protection. Rollover protection should be installed on hose between fuel tank and the “TANK” port on the bottom of the VSB per manufacturer’s direction.
2. Working with fuel is dangerous. If fuel is handled improperly it can lead to fires and death. It is imperative above anything else that all appropriate safety measures be used to control the fuel and any ignition sources, including static electricity, heat, sparks, and any other sources. Fuel lines and connections must be used in accordance with manufacturer’s specifications and routed away from any potential sources of heat, ignition, and protected from mechanical damage. If you are unsure about your work or safety, stop immediately and consult with a qualified automotive technician and/or safety official.
3. For safety and optimal performance Install away from ignition and heat sources such that the VSB does not exceed ambient outside air temperatures. The decal on the VSB indicates if it’s exposed to heat that may degrade the sealing system.

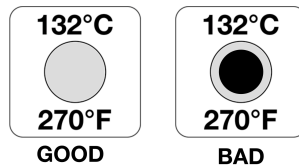


Figure 1

4. NOT compatible with nitromethane.
5. All methods, materials, and coatings in the VSB were chosen for compatibility with E85 and flex fuels, but under certain conditions these fuels become highly corrosive and as such we DO NOT warranty or guarantee products for use with E85 or fuels with more than 10% alcohol or other additives.
6. VSB is factory sealed and pressure tested, any attempt to open it will damage the seal.

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7. The fuel tank must have a vapor dome. A tank with a vapor dome has approximately 10% of its volume capacity left unfilled after a maximum fill so fuel vapors can be routed from this volume to the VSB.
8. If the fuel tank does not have a vapor dome, properly located vent ports(s), or the application, such as off-road or road racing, could cause the fuel tank vent port to be submerged, relocation or additional ports may be required. If the application has two or more vent ports they should be joined with a T fitting and a single hose routed to the VSB. **Failure to address this could result in liquid fuel bypassing through the VSB, pouring out on the ground creating a fire hazard.**
9. Any modifications of the fuel tank should be accomplished by a qualified mechanic who understands the inherent risks. If you have any questions its imperative you call II MUCH for Tech support.
10. Use only PTFE conductive core hose or steel hard lines, as all other known options may outgas significant fuel vapor, degrade internally, or develop leaks.
11. The VSB is designed strictly for mounting to vehicle floors — if other mounting locations are desired please consider II MUCH P/N 200024.
12. If the fuel in the tank is above ambient air temperature, allow to cool before parking in a confined space. (see installation #9)
13. FiTECH users — DO NOT connect to the “Vent” port of the Command Center.
14. Do not store vehicle with ethanol based fuels for longer than fuel vendor recommends, this could cause phase separation of the fuel and cause corrosion in the fuel system. Drain the tank or fill with 100% gasoline before storage.

## BACKGROUND

The II MUCH VSB is designed to provide a single source of filtered air for fuel tank or differential venting. The system prevents or eliminates fuel or lubricant discharges from vent hoses or vented fuel tank caps. It dramatically reduces or eliminates fuel and differential fluid odors. II MUCH vent products should not be used to replace or modify factory installed evaporative emissions systems.

## INSTALLATION (see fig. 3)

1. VSB mounting location should:
  - 1.1. Not exceed 275 °F. A temperature indicating decal is preinstalled on the VSB to indicate if operating temperature has been exceeded. If this happens call the II MUCH tech line.
  - 1.2. Free of burrs and be flat enough to allow o-ring to seal
  - 1.3. Not be located above heat or ignition sources in the event fuel exits the VSB filter due to overfilled or improperly vented fuel tank (see WARNING #8 Above)
2. It is essential that VSB is mounted high enough relative to the fuel tank vent port to ensure any surges of fuel that enter the vent hose can drain back into the fuel tank via gravity.
3. Drill a 2.5 inch hole and remove any burrs before proceeding. Next remove the nut and washer and position the VSB into the hole with the threaded portion protruding downward.
4. Install washer, and tighten nut until the gasket is fully compressed. It should be easy to feel when the gasket is compressed and the flange is fully seated on the sheet metal. **NOTE:** The nut is not symmetric: the side with the part number faces down. Tighten the set screw on the nut with an 1/8" hex key.
5. Unscrew red plastic plug from bottom of VSB and install a o-ring boss adapter (-6) in its place torqued to 13 ft. lbs.
6. Inspect for leaks before and after use.

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7. If fuel comes out of the filter at any time there is a problem with the location or quantity of vent ports on the tank. Immediately cease use and call II Much Tech Support.
8. Install the thermometer decal (figure 2) to the underside of the fuel tank. If it indicates fuel is 131°F or higher, fuel odor may be a problem in confined spaces as well as fuel pump cavitation

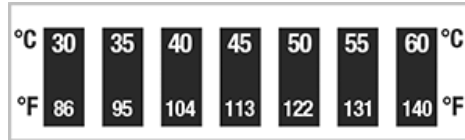


Figure 2

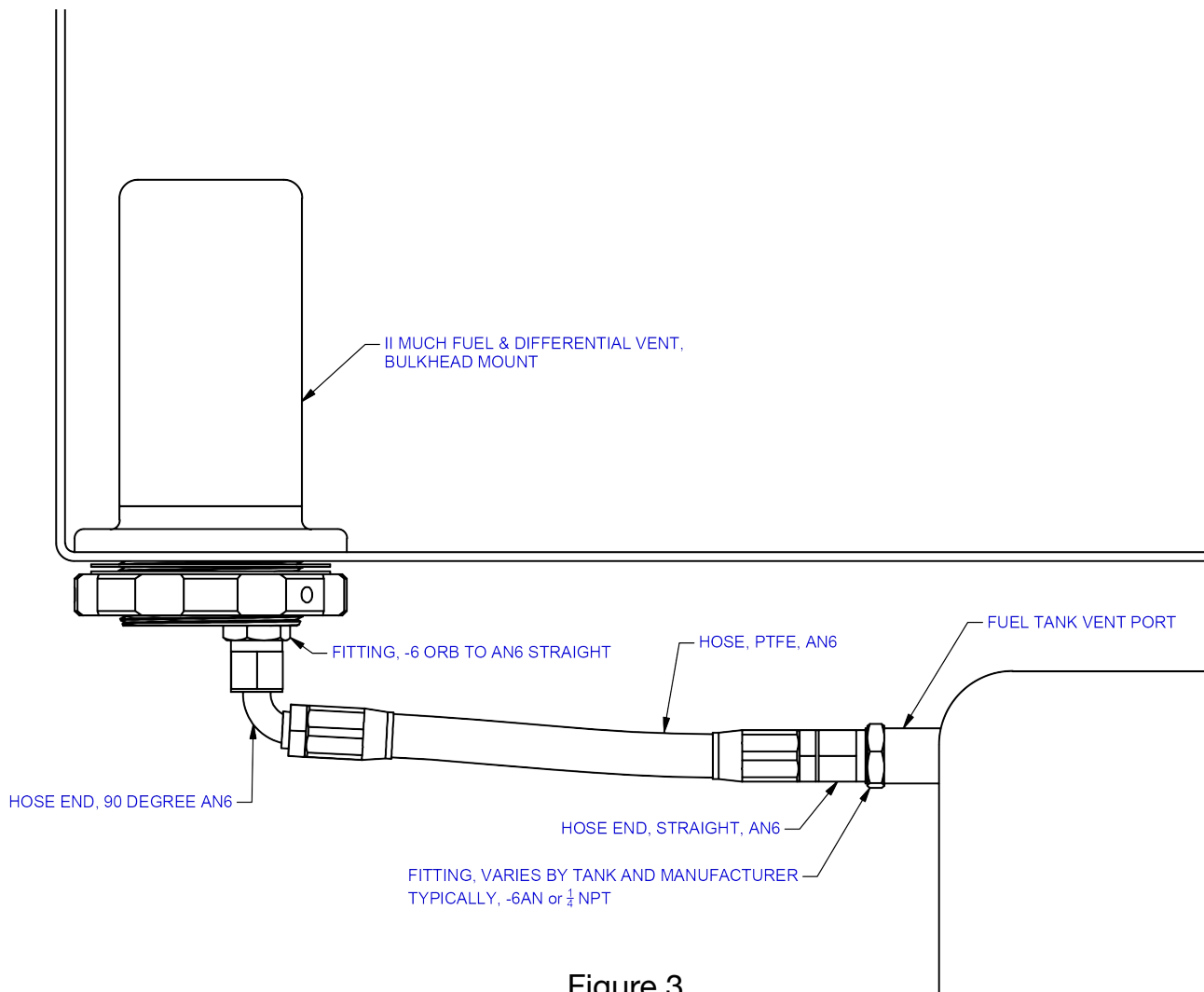


Figure 3

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## **Troubleshooting**

<b>PROBLEM</b>	<b>CAUSE</b>	<b>SOLUTION</b>
Fuel pouring out filter of VSB	No vapor dome in fuel tank. Poorly located vent port(s). Insufficient vent port(s). Tank over-filled.	Cease use of product. Call tank manufacturer or II MUCH Tech line 888-216-6033
Fuel Odor Still present after install	Wrong fuel hose Vented cap still in use Fuel leak Fuel too hot	Switch to hard lines or PTFE Conductive Core. Install sealed fuel tank cap. Inspect, repair, or replace any leaking items in system. Reroute fuel lines, install heat shielding, and in very high volume return style systems a fuel pump controller may be needed.
Air rushing out of tank when cap removed.	Fuel is trapped in vent hose. Filter is dirty/clogged Improperly located Vent Ports on fuel Tank.	Re-route vent hose allowing gravity to return liquid to tank. Re-locate VSB high enough to allow gravity to return liquid back to tank. Remove filter and clean. Contact II MUCH Tech Line
Can't access set screw on nut.	Blocked	Remove nut and move set screw into alternate threaded hole.

## **Frequently Asked Questions**

Q: Can the VSB be mounted at an angle or on horizontally?

A: It can be mounted up to 10 degrees from vertical, but the port to the fuel tank side of the vent should be at the lowest point to prevent surges of fuel from being trapped in the VSB.

Q: Does the VSB require maintenance.

A: No, its factory sealed and attempts to open it could cause a fuel leak.

Q: Does it contain active carbon or charcoal?

A: No, and its not meant to delete, modify, or replace emissions devices

Q: Can I use one VSB for both my fuel tank and differential?

A: No, this would cause fuel and differential lubricant to mix.

## **Warranty**

This products is warranted against defects in material and workmanship for one-year from the date of purchase. If, within one year, you find this product to be defective, return the product to us and we will – at our discretion – either repair or replace it at no cost to you. This warranty is your sole remedy in the event that the product fails in any way. We hereby also disclaim all liability for incidental or consequential damages arising from the use of this product. Misuse, abuse, or any failure to follow the instructions provided with the product, will result in the voiding of this warranty.